

Chapter 1, Section 1: Measuring Motion

Motion- The change of an object's position from its starting point to end point

Average Speed =

$$\frac{\text{Total Distance}}{\text{Total Time}} \quad \text{or} \quad \text{Total Distance/Total Time}$$

Distance- how far an object traveled from its starting point to its end point

Time- how long it took for an object to travel from its starting to its end point

Example: It takes Juice 2 hours to drive to Sofie's house, who lives 120 miles away. What is Juice's average speed?

$$\begin{aligned} \text{Avg Speed} &= \text{Distance} / \text{Time} \\ \text{Avg Speed} &= 120 \text{ miles} / 2 \text{ hours} \\ \text{Avg Speed} &= 60 \text{ miles/hour} \end{aligned}$$

1. School is 36 blocks from Nick's house. If it takes him 12 minutes to walk there, what is his average speed?
2. Jared is trying to impress all of the girls and throws a baseball 165 feet. It takes 3 seconds to land from the time he threw it. What is the ball's average speed?
3. Aniah decides to bring lunch to her favorite science teacher. If it takes her 20 minutes to get to school from the store and she is walking at 30 feet per minute, how far away is the store?
4. Elissa decides to carry Gianna up the stairs as a way of saying thanks for all of her help in science. The stairs total a distance of about 80 feet. If she is moving at .25 feet per second, how long will it take her to reach the top?